IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Patent Application of:	)	Group Art Unit: 2855
Iwao SAKAI et al.	)	Examiner: Harshad R. Patel
Application No.: 10/529,400	)	Confirmation No.: 6747
Filed: March 28, 2005	)	
For: METHOD AND APPARATUS FOR MEASURING FLOW RATE OF FLUID	)	Date: March 28, 2008

REPLY BRIEF

United States Patent and Trademark Office
Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The following Reply Brief is submitted in support of the appeal proceedings instituted by a Notice of Appeal filed July 13, 2007, in furtherance of the Appeal Brief filed November 13, 2007, and in response to the Examiner's Answer dated January 28, 2008.

In response to the Examiner's comments in section (10) starting on page 4 of the Examiner's Answer, Appellants disagree with Examiner's positions and respectfully submit the following comments.

With respect to the relationship between the oscillation wave and the shock wave, Appellants note that supporting documentation has been submitted, along with arguments in the Appeal Brief, establishing that, while a shock wave may be one type of oscillation wave, not every oscillation wave is necessarily a shock wave. The assertions of the Examiner contrary to this position are incorrect.

In an effort to make this distinction more clear to the Examiner, Appellants previously attempted to submit amendments during prosecution of this application to correct the erroneous portion of the Specification that the Examiner has consistently relied upon when

incorrectly asserting that an oscillation wave is always a shock wave. These amendments were submitted in an effort to clarify the scope of the invention and alleviate the Examiner's confusion. However, the Examiner refused to enter these amendments, and the Examiner continues to rely upon the erroneous portions of the Specification when making his rejections and related arguments.

In addition, the Examiner states that it is known that when an impulse of voltage is applied to a piezoelectric element, a shock is generated which may be in the form of an oscillation have a steel rise or fall, and cites Figures 4, 6, 8, and 12 of Ohnishi. Once again, the Examiner's statement has no sound ground. The waveform shown in Figure 4 of Ohnishi is not a wave generated by the ultrasonic transducer, but is instead a waveform of a wave applied to the ultrasonic transducer as is pointed out in Appellants' Appeal Brief on page 9. The waveforms shown in Figures 6, 8, and 12 are also not waves generated by the ultrasonic transducer, but are instead waveforms of waves applied to the ultrasonic transducer, as is described in paragraphs [0104], [0106], and [0110] of Ohnishi. Accordingly, the Examiner's statements that "these waveforms are based on an application of voltage to the transducer that would generate a wave in the flow that are detected by the second transducer either upstream or downstream from the first location," that "the waves of Ohnishi are shocks that are pulsed at an instance and later shown as an oscillation prior to be detected by the receiving unit at time 'To' as wave S_2," and that "any wave generated by a voltage applied to a piezoelectric element would be an impulse having a steep rise or fall as shown by Ohnishi" are neither justified nor correct.

In the last paragraph, the Examiner criticizes Appellant's argument that "the inventive idea of Ohnishi resides in the use of an oscillation wave transmitted in the wall for the flow rate measurement contradicting the conventional flow rate measuring method utilizing an oscillation wave transmitted in the moving fluid" by stating that "such arguments are not persuasive as Ohnishi shows in Fig. 1, that the wave 9 is transmitted through the wall through the moving fluid by the transducers mounted on the flow tube." This statement illustrates the fact that the Examiner does not understand the teachings of Ohnishi as Ohnishi clearly indicates that Fig. 1 illustrates not his flow rate-measuring system but a known flow rate-measuring system (see [0003] and [0099]).

Accordingly, for at least the above reasons, it is clear that the Examiner has failed to appreciate the technical distinctions between the claimed invention and the teachings of Ohnishi. Therefore, Appellants respectfully submit that the claimed invention is patentable over the APA and Ohnishi, taken alone or in combination, and request that the outstanding rejections under 35 U.S.C. § 103(a) in view of the APA and Ohnishi be overturned.

Respectfully submitted,

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Date: March 28, 2008

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